



RUBICON
Engineering Corporation

**BOEING REALTY CORPORATION
FORMER C-6 FACILITY
LOS ANGELES, CALIFORNIA**

**INTERNAL TECHNICAL MEMORANDUM
SEMI-ANNUAL ENVIRONMENTAL CHANGE AWARENESS REPORT**

**To: Ms. Stephanie M Sibbett
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**From: Mohsen Mehran, Ph.D.
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Date: March 23, 2005

**Subject: Environmental Change Awareness Report No. 3
September 2004 through February 2005
Boeing Realty Corporation
Former C-6 Facility
Los Angeles, California**

PURPOSE

The purpose of this memorandum is to update Boeing Realty Corporation (BRC) regarding the current environmental investigation and remediation activities and regulatory status of sites located adjacent to or in the vicinity of the Former C-6 Facility. These sites are shown in Figure 1 and are listed below.

- Del Amo Site
- Risto Los Angeles
- Ecology Control Industries
- American Polystyrene Corporation
- PACCAR Inc.
- Mighty USA
- Redman Equipment
- Montrose Chemical Corporation (Montrose)
- Jones Chemical
- International Light Metals (ILM)

Internal Technical Memorandum
Environmental Change Awareness Report

Former Boeing C-6 Facility
Los Angeles, California

Page 2
March 23, 2005

For each of these sites, regulatory oversight is provided by the United States Environmental Protection Agency, (EPA), Department of Toxic Substances Control (DTSC), or California Regional Water Quality Control Board, Los Angeles Region (LARWQCB). The contact information for each site is included in Attachment 1.

This update focuses on activities conducted at adjacent sites from September 2004 through February 2005. Activities conducted at adjacent sites prior to September 2004 may be discussed in this document if new information was only recently made available in the public files.

APPROACH

Documents provided by BRC and the LARWQCB were collected, reviewed, and evaluated. The documents are being compiled in an administrative index and the principal findings are summarized in this update according to the following format:

- Background
- Regulatory Oversight
- Recent Activities
- Schedule

DEL AMO SITE

Background

A 270-acre synthetic rubber facility, known as the Del Amo Site, was operated by several companies including Shell Oil Company and Dow Chemical Company from 1942 to 1972. Environmental investigations at this facility have shown that the principal chemicals of concern are benzene and chlorinated solvents. In September 1999, USEPA issued a joint Record of Decision (ROD) for the Del Amo and Montrose sites. The ROD calls for containing the NAPLs rather than cleaning up the aquifers to drinking water standards. The ROD also requires implementation of a pump-and-treat system to contain the dissolved plumes. The respondents for this site are primarily Shell Oil Company and the General Services Administration.

On May 8, 2003, EPA issued an Administrative Order to the respondents for conducting initial remedial design work. In addition to Montrose and Shell Oil, EPA will conduct groundwater modeling as outlined in the Administrative Order.

Regulatory Oversight

The Del Amo site is a Superfund site and EPA is the oversight agency. EPA considers the Del Amo and Montrose sites to be a joint site regarding ground water investigation and remedial actions. Recently, EPA has put pressure on the LARWQCB and the owners/operators of facilities adjacent to the Del Amo and Montrose sites to further characterize the water quality of the water-bearing zones beneath these sites with emphasis on the Gage aquifer and the C Sand.

Recent Activities

On August 3, 2004, URS Corporation (URS), on behalf of Shell Oil issued a work plan that includes installation of one well screened in the Upper Bellflower Aquitard (UBF), two Middle

Internal Technical Memorandum
Environmental Change Awareness Report

Former Boeing C-6 Facility
Los Angeles, California

Page 3
March 23, 2005

Bellflower (MBF) C-sand wells, and one well in the Gage aquifer. The well locations are located to further target "the TCE plume" as defined by the ROD.

In October 2004, CH2M Hill, on behalf of EPA, issued an Initial Calibration and Data Gap Analysis Report regarding the Montrose Chemical and Del Amo Superfund Sites. Modeled hydrogeologic units included in the calibration process were the UBF, the MBF, the Lower Bellflower aquifer (LBF), the Gage aquifer, the Gage-Lynwood aquitard, and the Lynwood aquifer. The model was calibrated using chlorobenzene and parachlorobenzene sulfonic acid (pCBSA) as the target chemicals. As part of the modeling, up to 11 extraction wells and seven injection wells were used as a remedial wellfield designed for containment and contaminant mass reduction. An optimization program was issued to develop the preferred model parameters.

A work plan was recently submitted to EPA that included three Hydropunch sampling locations southeast of PACCAR along the Del Amo property boundary. At each location, samples are to be collected from within the B-sand, C-Sand, and Gage aquifer.

Schedule

EPA is requesting further characterization of the Gage aquifer at facilities upgradient of the Del Amo site. Initial remedial design is expected to continue concurrent with additional site characterization until mid 2005. Large-scale groundwater extraction pilot tests are anticipated to extend to 2007 as part of the overall remedy.

Field work for the Hydropunch investigation was scheduled for March 2005.

RISTO LOS ANGELES

The Risto Los Angeles facility is located at 1441 W. 190th Street in Torrance, California, immediately north and upgradient of the Former C-6 facility. Although in 1992 DTSC identified the facility for preliminary environmental assessment, no additional information has been available.

ECOLOGY CONTROL INDUSTRIES

Background

ECI is located at 19500 S. Normandie Avenue in Torrance, California. The facility has been previously occupied by Lawson Enterprises, Incorporated (1962 to 1983), Major Paint Company (December 1984 to July 1985), Cal Gypsum (1985), and Andrews Pre-Fab (1986). In July 1986, three 5,000-gallon underground storage tanks (USTs), which according to the LACoDPW contained recycled solvents and thinners, were removed. These USTs were used from 1962 to 1985. Three, 8-foot diameter aboveground storage tanks (ASTs) contained methylene chloride, although no information regarding usage dates were available. Contaminants detected at the site include TCE, PCE, hydrocarbons, and styrene in soil samples; and TCE, PCE, and methylene chloride in ground water.

Internal Technical Memorandum
Environmental Change Awareness Report

Former Boeing C-6 Facility
Los Angeles, California

Page 4
March 23, 2005

Regulatory Oversight

January 18, 2005 LARWQCB approved ECI's December 8, 2004 work plan that includes collecting 36 soil gas samples at six locations, 72 soil samples from six locations, and installing three triple-nested groundwater piezometers with sampling depths of approximately 65, 80, and 95 feet bgs with quarterly monitoring and reporting requirements.

Recent Activities

On December 8, 2004, Earth Tech, Inc. on behalf of ECI, issued the work plan discussed above to LARWQCB.

Schedule

ECI began the field investigation in early February. The first quarterly groundwater monitoring report is due to LARWQCB by April 30, 2005 and the site investigation report is due by June 30, 2005.

AMERICAN POLYSTYRENE CORPORATION

Background

American Polystyrene Corporation, formerly known as Amoco Chemical and Brand Plastics, has been located at 1225 W. 196th Street in Torrance, California since 1962. These companies produced polystyrene by mixing a styrene polymer and 20% mineral oil solution (Ecology & Environment, March 21, 1987). The facility was listed under RCRA. Brand Plastics operated the facility from 1962 to 1964. An industrial waste permit was issued to Brand Plastics in 1962 for the use of a 35-foot deep dry well for the discharge of cooling water for plastic extruding machines (URS Corporation, August 3, 2004). After Brand Plastics, Amoco operated the facility from 1964 to 1993. On May 6, 1993 American Polystyrene purchased the property from Amoco. Available reports demonstrate that soil and groundwater have been impacted by the past operations. The facility has nine 10,000-gallon USTs; including eight that have been recently used to store styrene and one to store mineral oil (URS Corporation, August 3, 2004). The principal chemicals of concern are TCE, PCE, methylene chloride, and styrene.

Regulatory Oversight

September 24, 2004 LARWQCB sent a letter to American Polystyrene regarding anticipated oversight cost through June 2005.

Recent Activities

On August 30, 2004, Winfield & Associates, Inc. (Winfield), on behalf of American Polystyrene, submitted a Third Quarter 2004 Ground Water Monitoring and Status Report to LARWQCB. The report presents third quarter ground water monitoring data including isoconcentration plumes for the facility wells monitored. Concentrations of TCE in the six groundwater monitoring wells ranged from 622 to 14,200 ug/L. The maximum concentration of PCE and cis-1,2-DCE detected in groundwater was 4,200 and 134 ug/L, respectively. American Polystyrene states that cis-1,2-DCE, TCE, and PCE have not been used at the site by any past owners or by American Polystyrene. However, according to LARWQCB's September 24, 2004 letter, TCE and PCE have been detected in on-site soil up to 46,000 and 2,400 ug/kg, respectively.

Internal Technical Memorandum
Environmental Change Awareness Report

Former Boeing C-6 Facility
Los Angeles, California

Page 5
March 23, 2005

American Polystyrene requested to “be removed from all further ground water monitoring, assessment and/or remediation requirements.” A response from LARWQCB was not available for review.

PACCAR (Former Trico Industries)

Background

The facility is located at 1206 West 196th Street in Torrance, California. Property use included agricultural activities (1920-1940), construction of a cesspool (1957) followed by paint manufacturing and storage of solvents by American Chemsolv. In 1974 B&W Monarch purchased the site and later Trico Industries purchased the facility from B&W in January 1981 and used the site for manufacturing and testing well completion equipment. In 1989, Trico sold the western portion (19706 S. Normandie Avenue) to Mighty USA. Hazardous materials used at the site included paints, paint thinners, and various types of lubricating and hydraulic oils. Elevated concentrations of diesel fuel, TCE, PCE, TCA, and 1,2-DCA have been detected in soil and groundwater.

Regulatory Oversight

On October 15, 2004, PACCAR submitted a letter to LARWQCB that included as attachments, requested documents generated from 1983 through 1987. The letter also indicated that there was no significant source of contamination at the PACCAR facility.

On November 4, 2004, PACCAR submitted a letter to LARWQCB stating no significant source of contamination or DNAPL has been found. PACCAR requested closure of surface soils and requested a meeting.

Recent Activities

On October 22, 2004, Hart Crowser, Inc. (Hart Crowser), on behalf of PACCAR, submitted a soil removal report and a clarifier removal report to LARWQCB. The soil removal report documents the removal of approximately 120 tons of soil (approximately 16 feet long, 14 feet wide, and 12 feet deep) impacted by solvents. The field activities were conducted in May and June 2004. After soil removal was completed, ten confirmation samples were collected. The highest concentrations of PCE and TCE were detected in a sidewall sample at 3,900 and 490 ug/kg, respectively.

In mid-2004, approximately 25 tons of soil and concrete were removed from the site during clarifier closure activities in the southeast corner of the site. Confirmation soil samples showed concentrations of PCE up to 13 ug/kg. PACCAR requested closure for soils in the southeast corner of the site.

On November 2, 2004, Hart Crowser, on behalf of PACCAR, submitted a *Supplemental Site Investigation-Additional Assessment Report* for seven borings drilled to 55 feet bgs across the site. The borings drilled near the northern boundary of the site showed elevated levels of TCE and PCE at concentrations up to 7,000 ug/kg. PACCAR requested closure for soils in the southern portion of the site and recommended enhanced bioremediation to remediate the soil near the northern site boundary.

Internal Technical Memorandum
Environmental Change Awareness Report

Former Boeing C-6 Facility
Los Angeles, California

Page 6
March 23, 2005

Schedule

There is no document that indicates near future activities at this site.

MIGHTY USA (Former Trico Industries)

This facility is located at 19706 S. Normandie Avenue in Torrance, California and it was part of the former Trico Industries site. Mighty USA also leases the remainder of the eastern portion of the property which is owned by PACCAR. Environmental investigations were initiated at the site as early as 1987. The principal potential source of subsurface contamination, including solvents, at the site is a former cesspool located in the southwest part of the property (URS Corporation, August 3, 2004). Elevated concentrations of TCE, PCE, and methylene chloride have been detected in groundwater (SCS Engineers, November 1987; April 1988).

Regulatory Oversight

On October 21, 2004, Waterstone Environmental, Inc., on behalf of Mighty USA, responded to EPA's September 2, 2004 request for information. The information contained in the submittal includes copies of previous environmental site assessment reports, a figure showing subsurface piping and trenches, piping diagrams, and chemical usage.

REDMAN EQUIPMENT

The Redman Equipment and Manufacturing Company (Redman) facility is located at 19800 S. Normandie Avenue in Torrance, California. In 1987, two 10,000-gallon USTs (containing diesel and gasoline) were removed from the site (URS Corporation, August 3, 2004). Soil samples collected from the resulting excavation showed up to 222 mg/kg of total recoverable petroleum hydrocarbons (TRPH) beneath the former diesel tank. No other pertinent information is available.

MONTROSE CHEMICAL

Background

The Former Montrose Chemical facility is located at 20201 S. Normandie Avenue, Torrance, California. It is located immediately adjacent to and south of the Former C-6 Facility. Montrose operated a DDT-manufacturing plant at this 13-acre property from 1947 to 1982. Chemicals of concern in soil and groundwater include DDT, chloroform, chlorobenzene, benzene, pCBA, and chlorinated VOCs. In September 1999, the USEPA issued a joint Record of Decision for the Del Amo and Montrose sites.

Regulatory Oversight

On May 8, 2003, EPA issued an Administrative Order to begin remedial design activities. Once these activities are completed, another administrative order is expected to be issued. On August 23, 2004 EPA sent a letter to Montrose providing review comments for a June 11, 2004 draft work plan for a pilot ground water extraction and municipal water supply injection test. EPA requested that Montrose modify the work plan in accordance with the comments.

Recent Activities

Activities performed at the site are as follows:

Internal Technical Memorandum
Environmental Change Awareness Report

Former Boeing C-6 Facility
Los Angeles, California

Page 7
March 23, 2005

- Held a meeting with EPA on July 1, 2004 regarding modeling of potential remedial well fields for the joint Del Amo and Montrose sites.
- In September 2004, Gage wells G-20 and G-21 were installed.
- In September 2004 a work plan was submitted to EPA for drilling 100 borings. The work plan is believed to still be under EPA's review.
- On September 23, 2004, Earth Tech, Inc. (Earth Tech) prepared a report for Montrose regarding a HiPOx (ozone and hydrogen peroxide added to contaminated water to break down organic compounds) advanced oxidation pilot test which was conducted on November 5, 2003 at the site. The HiPOx test was conducted to evaluate treatment of pCBSA and monochlorobenzene (MCB). Testing showed significant reduction in pCBSA and MCB concentrations.
- On September 24, 2004, Hargis + Associates, Inc. (Hargis), on behalf of Montrose, submitted a work plan to EPA for the replacement of well G-19 and the installation of five additional monitoring wells, G-20 through G-24, for model refinement including two upgradient wells and three downgradient wells. The new wells are to be installed to address EPA concerns regarding potential migration of contaminants from the C-Sand and LBF to the Gage aquifer, and migration within the Gage aquifer.
- On October 13, 2004, Hargis, on behalf of Montrose, submitted the final work plan on the pilot ground water extraction and municipal water supply injection test to EPA. The work plan called for the installation of extraction wells, injection wells, and observation wells in the C-Sand and Gage aquifer. Wells proposed in the C-Sand include two extraction wells southeast of the Montrose site, two injection wells located west and southeast of the Montrose site, and three observation wells. Wells proposed in the Gage aquifer include one extraction well southeast of the Montrose site, two injection wells located west and east of the Montrose site, and two observation wells.

Schedule

Activities scheduled to be performed at the site are as follows:

- Installation of Gage aquifer wells G-22 through G-24 are scheduled to be installed by Spring of 2005.
- Completion of comprehensive report on the installation of wells G-20 through G-24, and the 100 borings by June 2005.
- Installation of extraction, injection, and observation wells in the C-Sand and Gage aquifer for pilot testing by March 2005. (Three downgradient C-Sand and Gage

Internal Technical Memorandum Environmental Change Awareness Report

Former Boeing C-6 Facility
Los Angeles, California

Page 8
March 23, 2005

aquifer wells have been installed. Access agreements for four wells and one exploratory boring to the west of the site had not been obtained as of February 2005.)

- Injection pilot testing by April 2005. (Likely delayed due to well installation access issues and required agreements).
- Groundwater extraction pilot testing at approximately 200 gpm by May 2005. (Likely delayed due to well installation access issues).
- Preparation of a final pilot test report by August 2005. (Likely delayed due to well installation access issues).

JONES CHEMICAL

Background

The Jones Chemical facility is located adjacent to the south side of the Montrose property. In 1995, a preliminary environmental assessment (PEA) was conducted at Jones Chemical to determine whether current or past waste management activities have resulted in the release of hazardous substances. The PEA included a review of the history of operations at Jones Chemical, soil gas sampling, soil sampling, and risk screening. Analytes in soil included pesticides, VOCs, semi-volatiles, PCBs, and metals. Seventy-five soil gas samples were collected from 73 locations and over 150 soil samples were collected from 77 locations. No other historical information was available for review.

Recent Activities

In October 2004, Jones Chemical submitted a work plan to EPA for DNAPL investigation. A response from EPA was not available.

A work plan for soil gas investigation was submitted to EPA. After receiving comments from EPA, the work plan was revised and resubmitted in December 2004. A response from EPA was not available.

INTERNATIONAL LIGHT METALS

Background

International Light Metals (ILM) is located at 19200 S. Western Avenue, bordered to the north by W. 190th Street and to the east by the Former C-6 Facility. This 67-acre property was an industrial metal processing company from the beginning of World War II to 1992. Its operations included manufacturing and processing aluminum and titanium products. The principal chemicals included VOCs such as TCE and chromium. The wastes of their operation included spent sulfuric acid and sodium hydroxide, waste oils, spent TCA, acid and caustic sludges, spent petroleum solvents, and PCBs. High concentrations of TCE and hexavalent chromium have been detected at this facility

Internal Technical Memorandum

Environmental Change Awareness Report

Former Boeing C-6 Facility
Los Angeles, California

Page 9
March 23, 2005

Regulatory Oversight

DTSC is the oversight agency for this site. According to Chia Rin Yen of DTSC, the most recent Groundwater Health Risk Assessment Report submitted by ILM is currently being reviewed.

Recent Activities

In its third and fourth quarter 2004 progress reports (TRC, October 4, 2004; and January 15, 2005), TRC, on behalf of ILM, states that they submitted the Health Risk Assessment (HRA) Addendum to DTSC in August 2004. Phase I of the Corrective Measures Study is ongoing for the site. TRC states that activities associated with a Ground Water Corrective Measures Study (GWCMS) were conducted during the fourth quarter of 2004 and that the GWCMS report was submitted to DTSC on December 28, 2004. The report also mentioned that DTSC would not approve the HRA Addendum until an issue concerning offsite migration of contaminants was resolved.

Schedule

- Meetings and conference calls to resolve HRA issues and the submitted GWCMS report
- Review and response to DTSC comments on submitted documents
- Continuation of Groundwater CMS

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Figure 1

Site and Vicinity Map

Attachment 1

Adjacent Sites Contact Information

ATTACHMENT 1

ADJACENT SITES CONTACT INFORMATION

Site

Jones Chemical

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ATTACHMENT 1

ADJACENT SITES CONTACT INFORMATION

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